REMARKS

I. Introduction

In response to the Office Action mailed May 4, 2004, Applicants have canceled claim 1, without prejudice or disclaimer. Claim 2, 8 and 11-16 have been amended into independent format including all of the limitations of the underlying base claims. Applicants have also amended claim 7 so as to change the claim dependency thereof. Claims 17-25 have been added, and track the original claims 8-16, respectively. No new matter has been added.

For the reasons set forth below, Applicants respectfully submit that all pending claims are patentable over the cited prior art references.

II. The Rejection Of The Claims Under 35 U.S.C. § 112, Second Paragraph

Claims 1-16 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

Specifically, the Examiner asserts that the recitation "the device composed of a programmable device which can reprogram a circuit configuration thereof" is unclear. While the Applicants believe the foregoing language is clear, in an effort to expedite the prosecution of the application, Applicants have amended the claims to recite "the device composed of a programmable device whose circuit configuration is reprogrammable" so as to further clarify the claimed subject matter. It is respectfully submitted that the foregoing amendment to the claims overcomes the pending rejection under 35 U.S.C. § 112, second paragraph.

III. The Rejection Of The Claims Under 35 U.S.C. § 102

Claims 2-7 are rejected under 35 U.S.C. § 102(b) as being anticipated by USP No. 5,748,979 to Trimberger. Applicants respectfully traverse this rejection for at least the following reasons.

As recited by the foregoing claims, the present invention relates to a semiconductor integrated circuit comprising: a CPU; an auxiliary operational device for the CPU, the device composed of a programmable device whose circuit configuration is reprogrammable; **first diagnosing means** for receiving one or more instructions and diagnosing whether the one or more instructions is a reserved instruction that can be processed by the auxiliary operational device or not; **second diagnosing means** for diagnosing, upon receipt of a result of the first diagnosing means, whether the circuit for executing processing of the reserved instruction exists in the auxiliary operational device or not in a case where the one or more instructions is the reserved instruction; and **third diagnosing means** for diagnosing, upon receipt of diagnosis results of the first diagnosing means and/or the second diagnosing means, whether the processing of the reserved instruction is executed by using the auxiliary operational device or not in a case where the one or more instructions is the reserved instruction.

Specifically, in accordance with one embodiment of the present invention, the first diagnosing means receives one or more instructions and diagnoses if the received instruction is a reserved instruction, while the second diagnosing means and third diagnosing means, upon receiving the result of the first diagnosing means, diagnoses whether the processing of the reserved instruction is executed by using the auxiliary operational device. As readily shown in Fig. 2 of Applicants' drawings, in a case where the circuit for executing the

processing of an F instruction is not composed in the embedded FPGA 19, an equivalent processing similar to the processing of F instruction is executed by sending the substitute instruction to the CPU 18, thereby allowing the processing of F instruction to proceed and preventing a halt of the CPU 18 (see, page 9 line 5 to page 20, line 7 of the specification).

Turning to the cited prior art, the Examiner asserts that Trimberger discloses, at col. 13, line 10, "a diagnosing means for diagnosing whether a circuit exists and executes the reserved instruction." In contrast to the conclusion set forth in the pending rejection, the asserted portion of Trimberger discloses a plurality of programmable execution units RISA A, RISA B, and a RISA instruction page table 316 having a field for each instruction which indicates which of the plurality of programmable execution units is configured to execute the instruction. Trimberger further discloses that if the incoming instruction does not match with the instructions stored, then a miss is indicated, where the instruction management logic issues a signal which causes the processor to stop, and to reconfigure the programmable execution unit of the field programmable array to execute the instruction (see, col. 4, lines 30-35 and col. 13, lines 54-65). In other words, Trimberger specifically discloses that in an event of an indication of a miss, the processor is stopped, and the programmable execution unit is reconfigured.

However, even assuming *arguendo* that Trimberger discloses or suggests a first diagnosing means for receiving instruction and diagnosing whether such instruction is a reserved instruction, Trimberger does not disclose or suggest a second diagnosing means, or a third diagnosing means for diagnosing, upon receipt of the result of the first diagnosing means, whether the processing of the reserved instruction is executed by using any auxiliary operational device. Indeed, it does not appear that Trimberger discloses any second or third

diagnosing means since the processor is halted upon detecting a miss if the incoming instruction does not match with the instruction stored.

Thus, at a minimum, Trimberger does not disclose or suggest a semiconductor integrated circuit a second diagnosing means for diagnosing, upon receipt of a result of the first diagnosing means, whether the circuit for executing processing of the reserved instruction exists in the auxiliary operational device or not in a case where the one or more instructions is the reserved instruction, or a third diagnosing means for diagnosing, upon receipt of diagnosis results of the first diagnosing means and/or the second diagnosing means, whether the processing of the reserved instruction is executed by using the auxiliary operational device or not in a case where the one or more instructions is the reserved instruction, as recited by amended claim 2.

Thus, as anticipation under 35 U.S.C. § 102 requires that each element of the claim in issue be found, either expressly described or under principles of inherency, in a single prior art reference, *Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 218 USPQ 781 (Fed. Cir. 1983)*, and at a minimum, Trimberger fails to disclose the foregoing claim elements, it is clear that Trimberger does not anticipate any of the amended claims.

IV. All Dependent Claims Are Allowable Because The Independent Claims From Which They Depend Are Allowable

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co., 819 F.2d at 1100, 1108 (Fed. Cir. 1987)*. Accordingly, as

claims 2, 8 and 11-16 are patentable for the reasons set forth above, it is respectfully submitted that all claims dependent thereon are also in condition for allowance.

For all of the foregoing reasons, it is submitted that claims 2-16 are patentable over the cited prior art. Accordingly, it is respectfully requested that the rejections of claims 2-16 be withdrawn.

Furthermore, with regard to new claims 17-25, it does not appear that Trimberger or any of the cited references disclose or suggest the claimed subject matter as recited by the foregoing claims. As such, it is respectfully submitted that claims 17-25 are also patentably distinct over the prior art.

V. Conclusion

Accordingly, it is urged that the application is in condition for allowance, an indication of which is respectfully solicited.

If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, the Examiner is requested to call Applicants' attorney at the telephone number shown below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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